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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,363	08/28/2001	George Emil Sakoske	DMCC 48820	9177

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EXAMINER
PADGETT, MARIANNE L

ART UNIT	PAPER NUMBER
1762	3

DATE MAILED: 04/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.	Applicant(s)
09/941,363	George Emil Sakoske
Examiner	**Group Art Unit**
M.L. Padgett	1762

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 1/3/03.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-57 is/are pending in the application.

Of the above claim(s) 34-57 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-33 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-33, drawn to a method of coating, then patterning via laser ablation, classified in class 427, subclass 555.

II. Claims 34-57, drawn to a substrate, possibly glass, with a pattern thereon, classified in class 428, subclass 426.

2. The inventions are distinct, each from the other because:

Inventions Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product may be made by different processes, such as electron beam ablation; photo reacting (or thermal), then developing; various patterned initial deposition techniques, etc., since for product claims it is the final structure that provides significance, not how one arrives at that structure. The invention taught/claimed by Axtell, III et al, is an example of and alternate process that produces like structural results.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Alan Towner on 3/17/03 a provisional election was made with traverse to prosecute the invention of Group I, method claims 1-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims

34-57 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Claims 2-6, 17-18, 20-24 and 32-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The independent claims 1 and 19 do not use the "step" terminology, hence dependent claims 2-6 and 20-24 which refer back to "the... step", lack proper antecedent basis due to inconsistent nomenclature. Deleting "step" would appear to correct the defect in each case, or adding it in the independent claims.

In claim 17-18 and 32-33, "the screen printed material" lacks any proper antecedent basis, as no "material" has been previously introduced, so there is no clear or positive relationship between this material, and the limitations of the independent claims. Also, "crystal seed powder" represents what? It sounds like a non-idiomatic description. The limitation "printing medium" could read on the entire composition, and in the context of a component thereof has no clear meaning.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-2 and 9-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Heyman et al.

Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyman et al.

Heyman et al teach making markings by laser ablation on glass substrates of coating 29 or 19 (possibly applied by screen coating), to expose under coating 28 or 18 (ablation portion), where both layers may consist of glass frit and pigment mixtures that are baked or fired to make them permanent after the laser ablation. The marking taught by Heyman et al are bar code marking, and while their content or meaning is not discussed, typical uses therefore are to provide serial numbers and other manufacturing or marketing information, hence it would have been obvious for one of ordinary skill in the art to use this laser ablation marking technique to provide whatever information desired on the object being marked, especially any information traditionally provided by bar-codes, as well as to create any other product identifying markings, such as logos, names, etc. In Heyman et al, particularly see the abstract; figures; summary; col. 2, lines 31-51; col. 3, line 37-col. 4, line 43 (for application techniques like screening and appropriate compositions therefore, including pigmented frits or pigmented silicate coatings, either also employing TiO_2); and col. 5, lines 1-61 for more workpiece (line 39-glass) and composition suggestions. On col. 3, lines 50-55, it is specifically taught to fire the coatings after ablation in order to make them an integral part of the workpiece. While the particular percentages of frit glass and pigments are not disclosed by use of "8 gms #1011 screening paste...", in col. 4, lines 32-35, the use of TiO_2 reads on either pigment or metal oxide of the claims and it would have been obvious to one of ordinary skill in the art to use routine experimentation employing the suggested pigmented frits, to provide composition of suitable consistency for application by screening (i.e. screen printing) on the particular substrate,

especially as it is an old and well known technique. Note that the claimed "printing medium" may merely read on use of adequate liquid to create a paste of the solid frit and pigment materials.

Further note that in Heyman et al, the underlayer may be considered the decorative portion, and its overcoat the ablation portion, but also decorative is in the eye of the beholder, and any pattern deposited may be designated decorative.

8. Claims 11-16, 19-20 and 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyman et al as applied to claims 1-2, 7-10 and 17-18 above, and further in view of Axtell, III et al.

While Heyman et al teach application of their marking technique to glass, as exemplified by cathode ray-tubes, they do not discuss automotive glass in particular. The suggestion of glass generically suggest use in other commonly manufactured glass parts such as windshields used in automobiles, however who Axtell, III et al also teach glass, specifically suggest that automotive glass (col. 3, lines 30, 32-35 and 47-51, specifically 49-50 for automotive glass) be labeled. Axtell also uses glass frit material, pigments, metal oxides and various additives (col. 3, lines 54-col. 7, line 30), that may be applied by techniques as taught by Heyman et al, including screen printing, which are marked by laser irradiation (but the marking is saved rather than removed by the laser). It would have been obvious to one of ordinary skill that marking of automotive glass by Heyman et al's technique would have been desirable and effective, as Axtell, III et al supplies motivation to mark such products, supplying another specific type of glass to be marked for the primary reference's generic and specific teachings.

9. Other art of interest includes Bleacher et al, which is equivalent to Heyman et al except its screening is on decals to be applied and uses silicates instead of frits.

10. Claims 3-6 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyman et al in view of Axtell, III et al as applied to claims 1-2, 7-20 and 25-33 above, and further in view of Boaz.

Heyman et al in view of Axtell, III et al is silent with respect to the shaping, i.e. bending of glass, as is commonly performed in making automotive windshields, however, Boaz, who is coating the parameters of glass automobile windshields with a ceramic containing material, that is heat fused after it is patterned, teaches that the bending operation used in manufacturing windshields can be done after the pattern is applied, and in combination with the fusing operation (abstract; figures; col. 1, lines 33-50; col. 2, lines 15-30; and col. 6, lines 43-52).

It would have been obvious to one of ordinary skill in the art, that when making an automotive windshield, as is suggested by the Heyman et al plus Axtell, III et al combination, that bending during firing would have been desirable and/effective, because Boaz is using analogous fusible material to coat/mark like substrates, with all referencing teaching firing to fuse after patterning, and Boaz suggests that combining the firing and bending operations, advantageously saves steps, hence time and processing space, etc.

11. Other art of interest for teachings of coating and bending glass include Thomas, who silk screens, bakes then tempers and or blends the automotive window blank (flow chart).

12. Any inquiry concerning this communication from the examiner should be directed to M. L. Padgett whose telephone number is (703) 308-2336. The examiner can generally be reached on Monday-Friday from about 8:30 a.m. to 4:30 p.m.; and fax phone numbers are (703) 872-9310 (regular); (703) 872-9311 (after final); and (703) 305-6078 (unofficial).

M.L. Padgett/dh 04/02/03
April 10, 2003

MARIANNE PADGETT
PRIMARY EXAMINER

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